

**REMARKS**

Claims 1-15 are pending. Claims 8-15 are withdrawn from consideration.

Reconsideration and review of the claims on the merits are respectfully requested.

***Formal Matters***

On the Office Action Summary sheet, the Examiner notes that no certified copy of the priority document has yet to be received. Applicants will forward the certified copy of the priority document in due course.

Applicants appreciate that the Examiner has returned an initialed and signed copy of the Form PTO/SB/08 A & B (modified) submitted on December 27, 2001.

A telephonic interview was conducted on May 12, 2003, between the undersigned and Examiner Walke. The substance of the interview was as described in the Interview Summary provided by the Examiner. A copy of the Takashi et al reference (JP 11-246785 and its English Abstract) was requested as it was not attached to the first Office Action. Because of the missing reference, the undersigned also requested that the time for responding to the first Office Action dated April 23, 2003, be restarted upon mailing of the Takashi reference.

Applicants appreciate that the Examiner has restarted the time for replying as of May 14, 2003.

***Claim Rejections - 35 U.S.C. § 103***

Claims 1-7 have been rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over Takashi et al (JP 11-246785 and its English Language abstract) for the reasons given in the Office Action.

The Examiner asserts that Takashi discloses a silver halide photographic material comprising a phenidone compound in combination with a pyrrolotriazole cyan coupler as claimed in the present invention.

The Examiner asserts the following: that the pyrrolotriazine cyan couplers exemplified have structures similar to the presently claimed formula (I) (see formula III); that Compounds Cp-1, 3, 4-8, 10, 16, 17, 20-23 and 25-33 appear to meet the limitations for the present positions  $R^1$  and  $R^2$ ; that Compounds 1-34 meet the limitations of the present position  $R^3$  and the presently claimed formula (II); that Cp-32 and Cp-33 have similar structures except that Cp-32 has a  $-NHSO_2Ph(C_8H_{17}(t))(OC_8H_{17})$  group in the present  $R^5$  position and a methyl group in the present  $R^6$  position. Thus, the Examiner believes that the reference teaches the equivalence of the methyl substituent and the  $-NHSO_2Ph(C_8H_{17}(t))(OC_8H_{17})$  group on the phenyl ring. Therefore, it is the position of the Examiner that it would have been obvious to one of ordinary skill in the art to prepare the material of Takashi et al choosing to prepare coupler Cp-33 and add a methyl group to the position  $R^5$ , with reasonable expectation of achieving a material having reduced cyan stain and high fastness.

Applicants traverse the rejection and respond as follows.

The present invention is unobvious over the teachings in the cited JP-A-11-246785 (hereinafter abbreviated as "JP'785"), as discussed in detail below.

**The Present Invention is Distinguishable from JP'785**

The cyan coupler of formula (II) described in JP'785 may include the cyan coupler represented by formula (I) according to the present invention. However, the cyan coupler of

formula (I) according to the present invention has to have a specific combination of groups or atoms for R<sup>a</sup>, R<sup>b</sup>, X, Z<sup>a</sup>, and Z<sup>b</sup> on said formula (II), which combination is not mentioned or suggested in JP'785. JP'785 fails to disclose any specific combination of these groups and atoms or specific exemplified cyan coupler falling within the definition in the present invention.

In addition to the above, the following discussion and the concurrently filed Rule 132 Declaration will make it apparent that one skilled in the art could not reasonably expect the advantageous effects exhibited by the present invention, from the teachings of the cyan couplers, e.g. Cp-32 and Cp-33, in JP'785.

That is, Applicants submit that the present invention provides unexpectedly superior results. Applicants have conducted additional experimentation comparing the closest specific embodiments based on Takashi (embodiments containing Cp-33 or modifications thereof) with a representative invention embodiment which is as close to the closest Takashi embodiments as possible (i.e., an embodiment containing a compound which is similar to Cp-33, except for having a methyl group at R<sup>5</sup>). The additional experimentation is presented in a Rule 132 Declaration.

#### **Specific Structure of Applicants' Cyan Coupler**

One of the specific features of the present invention resides in the specific arrangement of substituents on the pyrrolotriazole skeleton of the cyan coupler of formula (I). That is, the pyrrolotriazole ring in formula (I) has a substituted phenyl group at the 2-position, and the substituted phenyl group has an alkyl group or an aryl group at the m-position, i.e. R<sup>5</sup> in formula (I), as well as at least one substituent on said phenyl ring, i.e. R<sup>4</sup>, R<sup>6</sup>, R<sup>7</sup> and R<sup>8</sup>.

In this connection, from its descriptions including exemplified compounds, JP'785 fails to describe or suggest such a phenyl group at the 2-position on the pyrrolotriazole ring in the cyan coupler as defined in the present invention. This will be further discussed in the following two (2) points:

First, JP'785 contains no description or suggestion of a pyrrolotriazole cyan coupler having a phenyl group substituted with an alkyl or aryl group at the m-position of the phenyl group, which is an important feature recited in the present invention. JP'785 indeed discloses some exemplified compounds having a pyrrolotriazole ring containing a substituted phenyl group substituted with an alkyl group, but its position is only at the o-position or p-position of the phenyl group (See, e.g., Cp-1, Cp-11, Cp-20, Cp-25, Cp-26, Cp-28, Cp-29, Cp-31, and Cp-32 in JP'785); and

Second, JP'785 fails to describe or suggest the specificity of such a phenyl group having at least two substituents thereon, i.e. an alkyl or aryl group at the m-position and at least one substituent on another position, as defined in the present invention.

#### **Rebuttal to the Examiner's Assertions**

As explained above, the cyan coupler of the present invention would not have been obvious to one skilled in the art from the teachings in JP'785 and, moreover, one would not have expected the advantageous effects exhibited by the present invention.

Even if the exemplified couplers Cp-32 and Cp-33 in JP'785 are simply compared on their structure focusing on a substituted phenyl group at the 2-position of the pyrrolotriazole ring in which the substituted phenyl group has a -NHSO<sub>2</sub>Ph(C<sub>8</sub>H<sub>17</sub>(t))(OC<sub>8</sub>H<sub>17</sub>) group and a -CH<sub>3</sub>

group, there are a variety of isomers differing in the substituted positions for the -NHSO<sub>2</sub>Ph(C<sub>8</sub>H<sub>17</sub>(t))(OC<sub>8</sub>H<sub>17</sub>) group and the -CH<sub>3</sub> group from each other.

In this connection, such isomers have conspicuously different levels in reducing cyan stain and improving light fastness from each other. This is demonstrated in the Declaration.

**Rule 132 Declaration: Comparative Experimental Data**

To demonstrate unexpected and remarkable effects exhibited by the present invention, Mr. TAKEUCHI, who is a researcher in Fuji Photo and familiar with the above-identified application, conducted or supervised comparative testing and submits a copy of a signed Declaration under 37 C.F.R. § 1.132. The Declaration fully demonstrates the effects of the present invention unexpected from JP'785.

More specifically, the results of Sample 108 according to the present invention are unexpectedly superior to those of the comparative examples on each evaluated item, i.e. (1) color reproduction as indicated by the magenta density M(C2.0) at the cyan color-formed portion, (2) processing color-mixing C(M2.0), and (3) light fastness as indicated by cyan residual percent (%). Further, the results of Sample 108 according to the present invention are unexpectedly superior to not only the comparative examples which utilized Cp-32 or Cp-33 in JP'785, but also superior to the comparative examples which utilized Cp-33', Cp-33" or Cp-33"', each of which is a modification of Cp-32 or Cp-33 from JP'785 and is an isomer. This clearly demonstrates that the superiority of the cyan coupler for use in the present invention could not be expected from the couplers in JP'785 or their possible isomers.

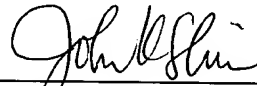
**Conclusion**

Accordingly, JP'785 never teaches or suggests the present invention, and the advantageous effects exhibited by the present invention could not be expected from the teachings in JP'785. For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a).

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



John K. Shin  
Registration No. 48,409

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE

**23373**

CUSTOMER NUMBER

Date: November 14, 2003



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Takeshi NAKAMINE et al.

Application No.: 09/963,584

Group Art Unit: 1752

Confirmation No.: 3262

Examiner: WALKE, AMANDA C.

Filed: September 27, 2001

For: SILVER HALIDE COLOR PHOTOGRAPHIC LIGHT-SENSITIVE  
MATERIAL, PYRROLOTRIAZOLE COMPOUND, AND DYE-FORMING  
COMPOUND

DECLARATION UNDER 37 C.F.R. § 1.132

Honorable Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir:

I, Kiyoshi TAKEUCHI, hereby declare and state that:

1. I am a citizen of Japan residing at c/o Fuji Photo  
Film Co., Ltd., No. 210 Nakanuma, Minami-ashigara-shi,  
Kanagawa-ken, Japan.

I received a degree of Master of Science in Chemistry,  
majoring in organosilicon chemistry, from the graduate school  
of science of Tohoku University in March of 1989.

Since April, 1989, I have been employed by Fuji Photo  
Film Co., Ltd. and have been engaged in research and  
development on synthesis of photographic organic materials  
including dye-forming couplers and application thereof to  
silver halide color photographic materials at the Ashigara  
laboratories of the said company.

I am intimately familiar with the subject matter of the United States Patent Application No. 09/963,584, filed on September 27, 2001, its prosecution before the United States Patent & Trademark Office, and the references cited therein.

2. I have studied the contents of the cited Japanese Patent Publication No. 11-246785.

3. To show the superiority of the present invention, the following tests were conducted, by me or under my supervision:

#### Test

Samples A01 to A05 were prepared in the same manner as the silver halide color photographic light-sensitive material sample 108 in Example 2 in the present specification, except that the cyan coupler (16) in the fifth layer was replaced with each of the cyan couplers shown in the following Table A, respectively. The cyan couplers used were cyan couplers Cp-33 and Cp-32 shown in Japanese Patent Publication No. 11-246785 (JP-A-11-246785), and cyan couplers Cp-33', Cp-33'', and Cp-33''', each of which is a modification of the said Cp-33 shown in JP-A-11-246785.

The thus-prepared samples were subjected to exposure and were then processed in the same manner as in Example 2 in the present specification.

Thereafter, these samples were evaluated for color reproduction (indicated by the magenta density M(C2.0) at the



cyan color-formed portion), processing color-mixing C(M2.0), and light fastness (indicated by cyan residual percent (%)), in the same manner as in Example 2 in the present specification, except that each sample was exposed to xenon rays for not 14 days but 20 days; and that densities after irradiating light, in the area with a cyan density of not 2.0 but 1.0 before irradiating light, were measured, in the evaluation for light fastness of the above samples.

Further, Sample 108, as shown in Table 2 in the specification of the present application, was evaluated for light fastness in the same manner as in the above. Further, for reference, the results, except for that of light fastness, of Sample 108 shown in Table 2 in the specification of the present application, were excerpted and are again shown in Table A.

The results are shown in Table A.

Table A

Sample No.	Cyan coupler*	Density of magenta component in Cyan M(C2.0)	Processing color-mixing (cyan density) C(M2.0)	Light-fastness (residual rate (%) of cyan density)	Remarks
A01	Cp-33	0.68	0.46	55	Comparative example
A02	Cp-32	0.68	0.45	53	Comparative example
A03	Cp-33'	0.67	0.45	54	Comparative example
A04	Cp-33''	0.67	0.46	55	Comparative example
A05	Cp-33'''	0.68	0.46	53	Comparative example
108	(16)	0.55	0.36	72	This invention

(Note) \* Each sample contained ExC-3.

As is apparent from the results shown in Table A, Sample 108, which utilized the cyan coupler according to the present invention, was less in density of magenta component in cyan; it was less in processing color-mixing of cyan when forming magenta color, and it exhibited superior light-fastness, compared with the comparative examples A01 to A05, each of which utilized the cyan coupler for comparison.

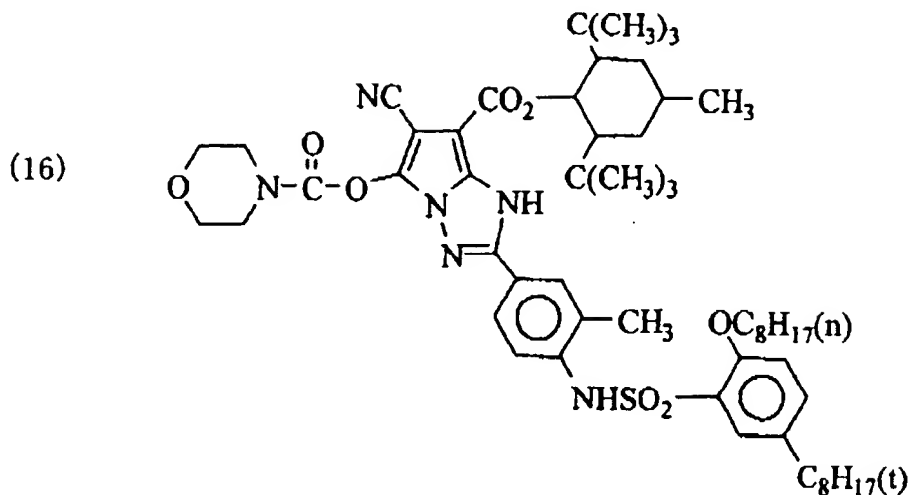
In other words, samples that utilized the cyan coupler according to the present invention exhibited effects unexpected from and remarkable compared with the samples for comparison according to the disclosure in JP-A-11-246785 or modification therefrom.

### Couplers utilized in the test

Shown below are structures of cyan couplers in the above test. Cyan couplers Cp-33 and Cp-32 were those disclosed in JP-A-11-246785. Cyan couplers Cp-33', Cp-33'', and Cp-33''' were prepared by modifying Cyan coupler Cp-32 or Cp-33, respectively. Cyan coupler (16) was one according to the present invention. The cyan couplers Cp-33, Cp-32, Cp-33', Cp-33'', and Cp-33''', each for comparison, were different from Cyan coupler (16), in the substituent ( $R^5$ ) on the phenyl group, which phenyl group was at the 2-position of the pyrrolotriazole skeleton.

*i*

Coupler according to the present invention:



The data already of record in the specification and the supplemental data submitted herewith demonstrate unexpectedly superior results of the claimed silver halide color photographic light-sensitive material over those of the cited prior art.

4. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or

any patent issuing thereon.

Date: November 12, 2003

Kiyoshi Takeuchi  
Kiyoshi TAKEUCHI